

Sound wave interference

condensations rarefactions

2 rarefactions = const. int. amp. up
cond to rarefaction = destr. int. amp. down
2 rarefactions const.
2 cond. const.

2 condensations = const. interference

- Beat phenomena - oscillation in loudness (amplitude) when 2 freq. are played together and combine alternatively constructively + destructively

Apr 6-7:36 AM

Standing waves in Sound.

high pressure low pressure

Closed-end resonator
tube closed on one end
Sound wave reflects off the bottom & comes back

Just like transverse

λ must be some integer times $\frac{1}{2}L$

Open-end resonator -
- keep resonating freq. separate so it can const. interfere

Apr 6-7:50 AM

Doppler Effect

λ looks shorter b/c the sound source "chases" each condensation before you hear a higher tone committing the next one

λ ↑
 f ↓

we hear a lower tone

Apr 6-8:00 AM